Claims

We claim:

1. A method of creating a classification system for medical care, comprising:
   a) obtaining a set of medical care codes;
   b) categorizing the medical care codes into major disease categories;
   c) categorizing the medical care codes into episode disease categories based on the severity and persistence of the disease, and assigning each episode disease category to a major disease category; and
   d) sub-dividing at least some of the episode disease categories by severity of illness.

2. The method of claim 1, further comprising defining a set of severity of illness levels for each episode disease category.

3. The method of claim 1, wherein at least some of the episode disease categories represent chronic conditions, and only the chronic episode disease categories are sub-divided by severity of illness.

4. The method of claim 1, further comprising defining a severity of illness leveling matrix for adjusting the severity of illness level for each episode disease category based on the nature and timing of treatment for each episode disease category.

5. The method of claim 3, further comprising:
   a) providing a second set of medical care codes;
   b) categorizing the medical care codes in the second set into episode procedure categories;
   wherein the severity of illness leveling matrix takes account of the episode procedure categories in adjusting the severity of illness level for each episode disease category.

6. The method of claim 5, further comprising the step of creating episode disease categories which are indicated by episode procedure categories.

7. The method of claim 1, further comprising defining criteria for aggregating the episode disease categories and severity of illness levels to assign an overall clinical risk group and severity of illness rating to an individual patient.

8. The method of claim 7, further comprising defining a set of selection criteria for selecting a primary chronic disease from the episode disease categories for each major disease category.

9. The method of claim 7, wherein the selection criteria for selecting the primary chronic disease comprise:

   a) ranking the episode disease categories in each major disease category by severity;

   b) adjusting the ranking based on the presence and severity of episode disease categories in other major disease category;

   c) selecting as the primary chronic disease the highest adjusted rank episode disease category in each major disease.

10. The method of claim 7, wherein the criteria assigning the overall clinical risk group comprise:

    a) defining criteria for a series of risk groups ranked in order of declining severity;

    b) comparing the primary chronic diseases to the criteria for each risk group, and assigning the most severe clinical risk group for which the criteria are met.

11. The method of claim 10, wherein the clinical risk groups comprise:

    a) catastrophic conditions;

    b) dominant and metastatic malignancies;

    c) dominating chronic disease three or more organ systems;

    d) significant chronic disease in multiple organ systems;

    e) single dominant or moderate chronic disease;

    f) minor chronic disease in multiple organ systems;

    g) single minor chronic disease;

    h) history of significant acute disease; and

    i) healthy.

12. The method of claim 7, further comprising defining criteria for aggregating the clinical risk group and severity of illness rating to assign at least one aggregated clinical risk group and severity of illness rating to a group of patients.

13. A method of applying the classification system of any of claims 1 through 12, comprising:

    a) obtaining historical care data for an individual;

    b) determining the episode disease categories for the individual;

    c) adjusting the episode disease categories for the individual based on the nature and temporal relationships of the episode disease categories experienced by the individual.

14. The method of claim 13, wherein the adjustment step includes deleting episode disease categories when the temporal relationship between events implies that the disease indicated by an episode disease category has likely been eliminated by subsequent treatment.

5   15. The method of claim 13, wherein the adjustment step includes adding episode disease categories when the presence of multiple episode disease categories implies the presence of an underlying episode disease category.

16. The method of claim 13, further comprising the step of assigning a clinical risk group to the individual based on the adjusted episode disease categories experienced by the individual.

10   17. The method of claim 16, further comprising the steps of:

   a)   identifying from adjusted episode disease categories the primary chronic disease in each major disease categories; and

   b)   determining the clinical risk group based on the primary chronic diseases.

15   18. The method of claim 17, further comprising the steps:

   a)   determining the severity of illness level for each episode disease category experienced by the individual;

   b)   setting an initial severity of illness level for each major disease category to the severity of illness level for the primary chronic disease for that major disease

20   category;

   c)   adjusting the severity of illness level based on the nature, temporal relationships and severity of illness levels of the episode disease categories experienced by the individual; and

   d)   assigning an overall severity of illness for the individual based on the adjusted

25   severity of illness levels for the major disease categories experienced by the individual.

19. The method of claim 13, further comprising the steps of:

   a)   using the criteria for aggregating the clinical risk groups to aggregate the individuals clinical risk group into an aggregated clinical risk group;

30   b)   using the criteria for aggregating severity of illness to determine the severity of illness of the aggregated clinical risk group.

20. The method of claim 19, further comprising the step of repeating steps (b) and (c) in claim 19 to further aggregate the aggregated clinical risk groups.

21. The method of claim 13, further comprising the steps of:

a) repeating steps (a) through (c) for a plurality of individuals to assign a historical clinical risk group representative of what their clinical risk group would have been at a prior time;

b) analyzing the historical care data for a pre-determined time period after the prior time to determine the average cost of providing health care to all individuals in each historical clinical risk group during the time period; and

c) projecting future costs for the plurality of individuals by weighting the average costs for each historical risk group by the number of people currently in each clinical risk groups.

22. Computer storage media containing software which, when executed by a computer, will cause the computer to implement the method of claim 13.

23. A computer comprising a central processing unit programmed to apply the classification system of any of claims 1 through 20, by implementing method, comprising:

a) obtaining historical care data for an individual;

b) determining the episode disease categories for the individual;

c) adjusting the episode disease categories for the individual based on the nature and temporal relationships of the episode disease categories experienced by the individual.

24. The computer of claim 23, wherein the adjustment step includes deleting episode disease categories when the temporal relationship between events implies that the disease indicated by an episode disease category has likely been eliminated by subsequent treatment.

25. The computer of claim 23, wherein the adjustment step includes adding episode disease categories when the presence of multiple episode disease categories implies the presence of an underlying episode disease category.

26. The computer of claim 23, wherein the method further comprises the step of assigning a clinical risk group to the individual based on the adjusted episode disease categories experienced by the individual.

27. The computer of claim 26, wherein the method further comprises the steps of:

    a) identifying from adjusted episode disease categories the primary chronic disease in each major disease categories; and

    b) determining the clinical risk group based on the primary chronic diseases.

28. The computer of claim 27, wherein the method further comprises the steps of:

    a) determining the severity of illness level for each episode disease category experienced by the individual;

    b) setting an initial severity of illness level for each major disease category to the severity of illness level for the primary chronic disease for that major disease category;

    c) adjusting the severity of illness level based on the nature, temporal relationships and severity of illness levels of the episode disease categories experienced by the individual; and

    d) assigning an overall severity of illness for the individual based on the adjusted severity of illness levels for the major disease categories experienced by the individual.

29. The computer of claim 23, wherein the method further comprises the steps of:

    a) using the criteria for aggregating the clinical risk groups to aggregate the individuals clinical risk group into an aggregated clinical risk group;

    b) using the criteria for aggregating severity of illness to determine the severity of illness of the aggregated clinical risk group.

30. The computer of claim 29, wherein the method further comprises the step of repeating steps (b) and (c) in claim 29 to further aggregate the aggregated clinical risk groups.

31. The computer of claim 23, wherein the method further comprises the steps of:

    a) repeating steps (a) through (c) for a plurality of individuals to assign a historical clinical risk group representative of what their clinical risk group would have been at a prior time;

    b) analyzing the historical care data for a pre-determined time period after the prior time to determine the average cost of providing health care to all individuals in each historical clinical risk group during the time period; and

c) projecting future costs for the plurality of individuals by weighting the average costs for each historical risk group by the number of people currently in each clinical risk groups.